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FEB 06 2002  
TECH CENTER 1600/2900RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/677,152DATE: 01/24/2002  
TIME: 14:58:50Input Set : A:\SEQUENCE LISTING.txt  
Output Set: N:\CRF3\01242002\I677152.raw

43 (A) LENGTH: 539 base pairs  
 44 (B) TYPE: nucleic acid  
 45 (C) STRANDEDNESS: single  
 46 (D) TOPOLOGY: linear

W--> 47 (ii) MOLECULE TYPE: DNA  
 48 (ix) FEATURE:  
 49 (A) NAME/KEY: CDS  
 50 (B) LOCATION: 26..520

51 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1: 52  
 52 AGACAAGGCA GGGGACGCAC CAAGG ATG GAG ATG TTC CAG GGG CTG CTG CTG  
 Met Glu Met Phe Gln Gly Leu Leu Leu  
 53 -20 -15  
 54 TTG CTG CTG AGC ATG GGC GGG ACA TGG GCA TCC AAG GAG CCG CTT 100  
 55 TTG CTG CTG CTG AGC ATG GGC GGG ACA TGG GCA TCC AAG GAG CCG CTT  
 56 Leu Leu Leu Ser Met Gly Gly Thr Trp Ala Ser Lys Glu Pro Leu  
 57 -10 -5 1  
 W--> 58 CCG CCA CGG TGC CGC CCC ATC AAT GCC ACC CTG GCT GTG GAG AAG GAG 148  
 59 Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu  
 60 10 15 20  
 61 GGC TGC CCC GTG TGC ATC ACC GTC AAC ACC ACC ATC TGT GCC GGC TAC 196  
 62 Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly Tyr  
 63 25 30 35  
 64 TGC CCC ACC ATG ACC CGC GTG CTG CAG GGG GTC CTG CCG GCC CTG CCT 244  
 65 Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro  
 66 40 45 50  
 67 CAG GTG GTG TGC AAC TAC CGC GAT GTG CGC TTC GAG TCC ATC CCG CTC 292  
 68 Gln Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu  
 69 55 60 65  
 70 CCT GGC TGC CCG CGC GGC GTG AAC CCC GTG GTC TCC TAC GCC GTG GCT 340  
 71 Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala  
 72 70 75 80 85  
 73 CTC AGC TGT CAA TGT GCA CTC TGC CGC CGC AGC ACC ACT GAC TGC GGG 388  
 74 Leu Ser Cys Gln Cys Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly  
 75 90 95 100  
 76 GGT CCC AAG GAC CAC CCC TTG ACC TGT GAT GAC CCC CGC TTC CAG GAC 436  
 77 Gly Pro Lys Asp His Pro Leu Thr Cys Asp Asp Pro Arg Phe Gln Asp  
 78 105 110 115  
 79 TCC TCT TCC TCA AAG GCC CCT CCC AGC CTT CCA AGC CCA TCC CGA 484  
 80 Ser Ser Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg  
 81 120 125 130  
 82 CTC CCG GGG CCC TCG GAC ACC CCG ATC CTC CCA CAA TAAAGGCTTC 530  
 83 Leu Pro Gly Pro Ser Asp Thr Pro Ile Leu Pro Gln  
 84 135 140 145  
 85 TCAATCCGC  
 86 (2) INFORMATION FOR SEQ ID NO: 2:  
 87 (i) SEQUENCE CHARACTERISTICS:  
 88 (A) LENGTH: 165 amino acids  
 89 (B) TYPE: amino acid  
 90 (D) TOPOLOGY: linear  
 91 (ii) MOLECULE TYPE: protein

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92 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:  
 93 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Ser Met Gly -5  
                                   -10  
 94 -20                         -15    -5  
 95 Gly Thr Trp Ala Ser Lys Glu Pro Leu Arg Pro Arg Cys Arg Pro Ile  
                                5    10  
 96                             1    1  
 97 Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr  
                                20    25  
 98                             15    20  
 99 Val Asn Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Thr Arg Val  
                                35    40  
 100                             30    35  
 102 Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr Arg  
                                50    60  
 103                             45    55  
 104 Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val  
                                65    75  
 105                             70    75  
 106 Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser Cys Gln Cys Ala Leu  
                                85    90  
 107                             80    85  
 108 Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu  
                                95    105  
 109                             100    105  
 110 Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser Lys Ala Pro  
                                110    120  
 111                             115    120  
 112 Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr  
                                130    135                                    140  
 113 125  
 114 Pro Ile Leu Pro Gln  
                                145  
 115

116 (2) INFORMATION FOR SEQ ID NO: 3:

117 (i) SEQUENCE CHARACTERISTICS:  
 118                             (A) LENGTH: 14 amino acids  
 119                             (B) TYPE: amino acid  
 120                             (D) TOPOLOGY: linear

121 (ii) MOLECULE TYPE: peptide

122 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
 123                             Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln  
                                5    10

124 1

125 (2) INFORMATION FOR SEQ ID NO: 4:

126 (i) SEQUENCE CHARACTERISTICS:  
 127                             (A) LENGTH: 10 amino acids  
 128                             (B) TYPE: amino acid  
 129                             (D) TOPOLOGY: linear

130 (ii) MOLECULE TYPE: peptide

131 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
 132                             Leu Gln Gly Val Leu Pro Ala Leu Pro Gln  
                                5    10

133 1

134 (2) INFORMATION FOR SEQ ID NO: 5:

135 (i) SEQUENCE CHARACTERISTICS:  
 136                             (A) LENGTH: 7 amino acids  
 137                             (B) TYPE: amino acid  
 138                             (D) TOPOLOGY: linear

139 (ii) MOLECULE TYPE: peptide

140 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
 141                             Gly Val Leu Pro Ala Leu Pro

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142      1
143 (2) INFORMATION FOR SEQ ID NO: 6:
144     (i) SEQUENCE CHARACTERISTICS:
145       (A) LENGTH: 13 amino acids
146       (B) TYPE: amino acid
147       (D) TOPOLOGY: linear
148     (ii) MOLECULE TYPE: peptide
149     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
150       Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys
151           5                               10
152      1
153 (2) INFORMATION FOR SEQ ID NO: 7:
154     (i) SEQUENCE CHARACTERISTICS:
155       (A) LENGTH: 11 amino acids
156       (B) TYPE: amino acid
157       (D) TOPOLOGY: circular, linear
158     (ii) MOLECULE TYPE: peptide
159     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
160       Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser
161           5                               10
162      1
163 (2) INFORMATION FOR SEQ ID NO: 8:
164     (i) SEQUENCE CHARACTERISTICS:
165       (A) LENGTH: 13 amino acids
166       (B) TYPE: amino acid
167       (D) TOPOLOGY: linear
168     (ii) MOLECULE TYPE: peptide
169     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
170       Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
171           5                               10
172      1
173 (2) INFORMATION FOR SEQ ID NO: 9:
174     (i) SEQUENCE CHARACTERISTICS:
175       (A) LENGTH: 12 amino acids
176       (B) TYPE: amino acid
177       (D) TOPOLOGY: linear
178     (ii) MOLECULE TYPE: peptide
179     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
180       Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
181           5                               10
182      1
183 (2) INFORMATION FOR SEQ ID NO: 10:
184     (i) SEQUENCE CHARACTERISTICS:
185       (A) LENGTH: 11 amino acids
186       (B) TYPE: amino acid
187       (D) TOPOLOGY: linear
188     (ii) MOLECULE TYPE: peptide
189     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
190       Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
191           5                               10
192      1
193 (2) INFORMATION FOR SEQ ID NO: 11:
194     (i) SEQUENCE CHARACTERISTICS:
195       (A) LENGTH: 10 amino acids

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191      (B) TYPE: amino acid
192      (D) TOPOLOGY: linear
193      (ii) MOLECULE TYPE: peptide
194      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
195          Val Leu Gln Gly Val Leu Pro Ala Leu Pro
196          1           5           10
197 (2) INFORMATION FOR SEQ ID NO: 12:
198      (i) SEQUENCE CHARACTERISTICS:
199          (A) LENGTH: 14 amino acids
200          (B) TYPE: amino acid
201          (D) TOPOLOGY: linear
202      (ii) MOLECULE TYPE: peptide
203      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
204          Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys
205          1           5           10
206 (2) INFORMATION FOR SEQ ID NO: 13:
207      (i) SEQUENCE CHARACTERISTICS:
208          (A) LENGTH: 9 amino acids
209          (B) TYPE: amino acid
210          (D) TOPOLOGY: linear
211      (ii) MOLECULE TYPE: peptide
212      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
213          Leu Gln Gly Val Leu Pro Ala Leu Pro
214          1           5
215 (2) INFORMATION FOR SEQ ID NO: 14:
216      (i) SEQUENCE CHARACTERISTICS:
217          (A) LENGTH: 8 amino acids
218          (B) TYPE: amino acid
219          (D) TOPOLOGY: linear
220      (ii) MOLECULE TYPE: peptide
221      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
222          Gln Gly Val Leu Pro Ala Leu Pro
223          1           5
224 (2) INFORMATION FOR SEQ ID NO: 15:
225      (i) SEQUENCE CHARACTERISTICS:
226          (A) LENGTH: 10 amino acids
227          (B) TYPE: amino acid
228          (D) TOPOLOGY: linear
229      (ii) MOLECULE TYPE: peptide
230      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
231          Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
232          1           5           10
233 (2) INFORMATION FOR SEQ ID NO: 16:
234      (i) SEQUENCE CHARACTERISTICS:
235          (A) LENGTH: 11 amino acids
236          (B) TYPE: amino acid
237          (D) TOPOLOGY: linear
238      (ii) MOLECULE TYPE: peptide
239      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

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VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/677,152

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Input Set : A:\SEQUENCE LISTING.txt  
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L:2 M:220 C: Keyword misspelled or invalid format, [(l) GENERAL INFORMATION:]  
L:6 M:220 C: Keyword misspelled or invalid format, [(ii) TITLE OF INVENTION:]  
L:21 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:22 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:33 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:41 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:47 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1  
L:57 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1